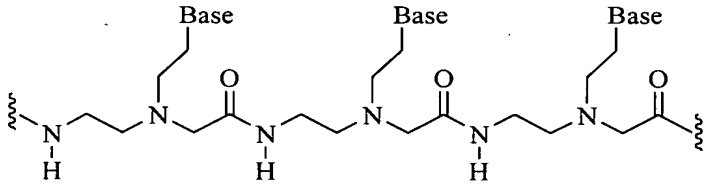
REMARKS

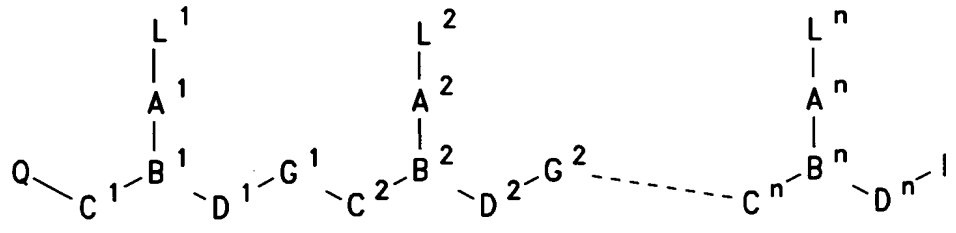
This is in response to the Notice of Non-Responsive Amendment mailed January 4, 2007. As explained below, Applicants believe that the paper filed on October 12, 2006, was fully responsive. In the following paragraphs, Applicants address the points raised by the Examiner and provide a detailed analysis of why the designated species is within the scope of the elected claims.

Although the Examiner alleges that Applicants point to page 20 to define the use of the terms T, C, A, and G, this passage was cited only to show that the elected species (PNA3, Seq. ID No. 5) is a "PNA" sequence not an oliognucleotide sequence that the Examiner's interpretation would require. This distinction is important in understanding that PNA3 falls within the scope of claim 22.

The Examiner also alleges that the 10-mer PNA3 has 10 bases but reads on a composition, even with a terminal Lys residue, having n=1 not n=2. This is simply incorrect. A PNA is well known to have a backbone of N-(2-aminoethyl)–glycine residues. The basic PNA structure is as follows.



The structure recited in Claim 22 is as follows.



Formula I

In claim 22, n is at least 2. In order to obtain the PNA structure shown above (and the elected species PNA3), the following selections would be made from the choices available in claim 22: G is -NHC(=O)-, C is CH_2, D is $(CH_2)_2$, A is $-C(O)CH_2-$, and L is the appropriate base.

One key to understanding that the structure represents multiple amino acid residues is consideration of variable "G". "G" is -NHC(=O)- in the elected species. Each base resides between two "G" groups or a "G" group and either a "Q" or "I" group. On one side of the base, the "NH" portion represents the amino end of the amino acid. On the other side of the base, the "CO" portion represents the acid end of the amino acid. Even ignoring Q and I, n is at least 8 for the 10-mer PNA3, because 8 bases reside between two G groups.[1] This satisfies the criteria of n being at least 2.

The designation of Sequence No. 5 (PNA3) as the species to assist with initial examination is consistent with our election of Group I (claims 12-19 and 22) relating to a nucleic acid mimic of formula I.

Applicants reassert the designation of Sequence ID No. 5 as the designated species. Further, Applicants request entry of the amendments submitted with our October 12, 2007 response and substantive examination of the pending claims.

[1] "Q" can be selected to be CO_2H and "I" can be selected as an amine group. Taking these groups into consideration, n is 10 for PNA3.

Applicant believe that this response, as well as our previous response, is fully responsive. If the Examiner has any questions, he is invited to contact the undersigned.

Respectfully submitted,

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